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## No. IV.

## THE PATENT METALLIC CEMENT.

By C. K. DYER.

November 29th, 1843.

BENJAMIN ROTCH, ESQ. V.P. IN THE CHAIR.

*Abstract.*

THE difficulty of obtaining the Italian pozzolano, the value of which as an hydraulic cement is well known to the civil engineer and architect, renders the introduction of the British metallic sand of considerable importance to all persons connected with building. It is produced from copper slag, which is obtained at Swansea in large quantities, being ground by means of powerful machinery.

In chemical analysis the metallic sand is very similar to the pozzolano, consisting of iron, zinc, arsenic, and silica, the iron predominating. In point of durability it is found to be quite equal to the latter. It enters readily into combination with blue lias lime, which has been used with the metallic cement for hydraulic works; and the indurating quality of the sand, after many years' exposure to the atmosphere, have been fully tested.

Several specimens of work executed with the metallic sand were laid on the table.

## No. V.

CHANTER'S MOVABLE FIRE-BARS AND  
SMOKE-CONSUMING APPARATUS.*Abstract.*

MR. CHANTER explained his movable fire-bar, the object of which is to prevent the accumulation of clinker